Molecular Immunology

LIST OF CONTENTS AND
AUTHOR INDEX
FOR VOLUME 30, 1993

Pergamon Press

Oxford · New York · Seoul · Tokyo

Molecular Immunology

Board of Regional Editors

Prof. MICHEL FOUGEREAU (Chairman of the Board), *Centre d'Immunologie de Marseille-Luminy, Case* 906, 13288 *Marseille Cedex* 9, *France*

Dr JANNIE BORST, *Division of Cellular Biochemistry, The Netherlands Cancer Institute, Plesmanlaan* 121, 1066 *CX Amsterdam, The Netherlands*

Dr STEVE DOWER, *Immunex Corporation,* 51 *University Street, Seattle, WA* 98101, *U.S.A.*

Dr STEVE GERONDAKIS, *The Walter and Eliza Hall Institute of Medical Research, Royal Melbourne Hospital, Victoria* 3050, *Australia*

Dr DAVID HOLOWKA, *Department of Chemistry, Cornell University, Ithaca, NY* 14853, *U.S.A.*

Dr ED PALMER, *Basel Institute for Immunology, Grenzacherstrasse* 487, *CH*-4005, *Basel, Switzerland*

Dr HIDDE PLOEGH, *Massachusetts Institute of Technology, Center for Cancer Research,* 40 *Ames Street, E*17-322, *Cambridge, MA* 02139, *U.S.A.*

Founding Editor

Prof. DAN H. CAMPBELL

Advisory Editors

G. I. ABELEV *Moscow, Russia*
B. H. BARBER *Toronto, Canada*
DAVID H. BING *Boston, MA, U.S.A.*
C. A. BONA *New York, NY, U.S.A.*
GUY BORDENAVE *Paris, France*
DENNIS R. BURTON *San Diego, CA, U.S.A.*
L. WILLIAM CLEM *Jackson, MI, U.S.A.*
JOHN E. COLIGAN *Bethesda, MD, U.S.A.*
MAURICE COLOMB *Grenoble, France*
D. H. CONRAD *Richmond, VA, U.S.A.*
GIAMPIETRO CORRADIN *Lausanne, Switzerland*
M. DAERON *Paris, France*
M. P. DIERICH *Innsbruck, Austria*
DOUGLAS FEARON *Cambridge, U.K.*
Z. FISHELSON *Tel Aviv, Israel*
R. FRADE *Paris, France*
ARNOLD FROESE *Winnipeg, Canada*
C. GRANIER *Montpellier, France*
SEN-ITIROH HAKOMORI *Seattle, WA, U.S.A.*
JOHN K. INMAN *Bethesda, MD, U.S.A.*
DAVID ISENMAN *Toronto, Canada*
M. KAARTINEN *Helsinki, Finland*
JEAN-PIERRE KINET *Bethesda, MD, U.S.A.*
MICHEL KLEIN *Toronto, Canada*
D. M. KRANZ *Urbana, IL, U.S.A.*
M. P. LEFRANC *Montpellier, France*
WARREN J. LEONARD *Bethesda, MD, U.S.A.*
HENNING LOWENSTEIN *Horsholm, Denmark*
J. P. MACH *Epalinges, Switzerland*
DAVID G. MARSH *Baltimore, MD, U.S.A.*
SHERIE L. MORRISON *Los Angeles, CA, U.S.A.*
JIRI NOVOTNY *Princeton, NJ, U.S.A.*
EDUARDO A. PADLAN *Bethesda, MD, U.S.A.*
ISRAEL PECHT *Rehovot, Israel*
JEAN-LOUIS PREUD'HOMME *Poitiers, France*
EVA RAJNAVOLGYI *Göd, Hungary*
J. V. RAVETCH *New York, NY, U.S.A.*
KENNETH H. ROUX *Tallahassee, FL, U.S.A.*
D. J. ROWLANDS *London, U.K.*
CATHERINE SAUTES *Paris, France*
VERNE N. SCHUMAKER *Los Angeles, CA, U.S.A.*
DAVID M. SEGAL *Bethesda, MD, U.S.A.*
B. DAVID STOLLAR *Boston, MA, U.S.A.*
MARC VAN REGENMORTEL *Strasbourg, France*
EDWARD W. VOSS, JR *Urbana, IL, U.S.A.*
I. YAHARA *Tokyo, Japan*
JUNJI YODOI *Kyoto, Japan*
D. C. YUAN *Dallas, TX, U.S.A.*

Production Editor

VICTORIA McNEILL, *Pergamon Press Ltd, Oxford OX*3 0*BW, England. Tel.* 0865 743871.

Publishing and Advertising Offices: Pergamon Press Ltd, Headington Hill Hall, Oxford OX3 0BW, U.K., and Pergamon Press Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, U.S.A. Annual Institutional Subscription Rates 1994: North, Central and South America, U.S.$1255.00, Rest of World £814.00. Associated Personal Subscription Rates are available on request for those whose institutions are library subscribers. Sterling prices exclude VAT. Non-VAT registered customers in the European Community will be charged the appropriate VAT in addition to the price listed. Prices include postage and insurance and are subject to change without notice. Subscription enquiries from customers in North America should be sent to: Pergamon Press Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, U.S.A., and for the remainder of the world to: Pergamon Press Ltd, Headington Hill Hall, Oxford OX3 0BW, U.K.

Published monthly plus additional issues in February, April, June, August, October and December.

Copyright © 1993 Pergamon Press Ltd

Whilst every effort is made by the publishers and editorial board to see that no inaccurate or misleading data, opinion or statement appear in this journal, they wish to make it clear that the data and opinions appearing in the articles and advertisements herein are the sole responsibility of the contributor or advertiser concerned. Accordingly, the publishers, the editorial board and editors and their respective employees, officers and agents accept no responsibility or liability whatsoever for the consequences of any such inaccurate or misleading data, opinion or statement.

Second Class Postage paid at Rahway, NJ and additional mailing offices. Postmaster send address corrections to *Molecular Immunology*, c/o Pergamon Press Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, U.S.A.

CONTENTS OF VOLUME 30

NUMBER ONE

D. Kozbor, E. Hyjek, R. Wiaderkiewicz, Z. Wang, M. Wang and E. Loh — 1 Competitor mRNA fragments for quantitation of cytokine specific transcripts in cell lysates

R. Attanasio, P. Kanda, G. W. Stunz, D. W. Buck and R. C. Kennedy — 9 Anti-peptide reagent identifies a primary-structure-dependent, cross-reactive idiotype expressed on heavy and light chains from a murine monoclonal anti-CD4

K. R. Chintalacharuvu, M. E. Lamm and C. S. Kaetzel — 19 Unstable inter-H chain disulfide bonding and non-covalently associated J chain in rat dimeric IgA

D. H. Conrad, C. A. Kozak, J. Vernachio, C. M. Squire, M. Rao and E. M. Eicher — 27 Chromosomal location and isoform analysis of mouse Fc_{ϵ}RII/CD23

T. E. Michaelsen, L. M. Næss and A. Aase — 35 Human IgG3 is decreased and IgG1, IgG2 and IgG4 are unchanged in molecular size by mild reduction and reoxidation without any major change in effector functions

T. L. McInerney, G. J. Howlett, L. C. Gruen and D. C. Jackson — 47 Quantitative analysis of the interaction between lysozyme and monoclonal antibody D1.3

A. Alcover, F. Hervé, J.-P. Boursier, G. Spagnoli, D. Olive, R. A. Mariuzza and O. Acuto — 55 A soluble form of the human CD8 alpha chain expressed in the baculovirus system: biochemical characterization and binding to MHC class I

G. Tosi, G. Mantero, A. R. Magalini, D. Primi, M. Soffiati, L. Pinelli, S. Sartoris, G. Tridente and R. S. Accolla — 69 HLA-DQB1 typing of north east Italian IDDM patients using amplified DNA, oligonucleotide probes and a rapid DNA-enzyme immunoassay (DEIA)

J. Sawada, T. Yamazaki and T. Terao — 77 Molecular and biochemical analyses of combining sites of monoclonal anti-morphine antibodies

N. F. Rebbe, B. D. Tong and S. Hickman — 87 Expression of nucleotide pyrophosphatase and alkaline phosphodiesterase I activities of PC-1, the murine plasma cell antigen

M. Dupuis, M. C. Peitsch, U. Hamann, K. K. Stanley and J. Tschopp — 95 Mutations in the putative lipid-interaction domain of complement C9 result in defective secretion of the functional protein

Short Communications

Y. K. Sykulev, R. J. Cohen and H. N. Eisen — 101 Particle counting by flow cytometry can determine intrinsic equilibrium constants for antibody–ligand interactions in solution

S. Angal, D. J. King, M. W. Bodmer, A. Turner, A. D. G. Lawson, G. Roberts, B. Pedley and J. R. Adair — 105 A single amino acid substitution abolishes the heterogeneity of chimeric mouse/human (IgG4) antibody

Brief Structural Data Reports

M. J. Atkinson and G. E. Wu — 109 Genomic sequence of a V(D)J rearrangement utilizing a new VH7183 family member VH7183.15

N. Harindranath, G. Donadel, G. Sigounas and A. L. Notkins 111 Comparison of complete nucleotide sequence of the human IgM heavy chain constant region of polyreactive and monoreactive antibodies

NUMBER TWO

V. Koistinen 113 Effects of sulphated polyanions on functions of complement factor H

M. Adib-Conquy, S. Avrameas and T. Ternynck 119 Monoclonal IgG and IgM autoantibodies obtained after polyclonal activation, show reactivities similar to those of polyclonal natural autoantibodies

M.-B. Villiers, F. M. Gabert, M. R. Jacquier, C. L. Villiers and M. G. Colomb 129 Involvement of the Zn-binding region of tetanus toxin in B and T recognition. Influence of Zn fixation

Q. V. Nguyen, A. M. Roskey, and R. E. Humphreys 137 Effects of Brefeldin A on cleavage of invariant chain to p21 and p10 and the appearance of I_i-freed class II MHC dimers

G. Zeder-Lutz, D. Altschuh, H. M. Geysen, E. Trifilieff, G. Sommermeyer and M. H. V. Van Regenmortel 145 Monoclonal antipeptide antibodies: affinity and kinetic rate constants measured for the peptide and the cognate protein using a biosensor technology

N. Paul-Eugene, J. P. Kolb, A. Calenda, J. Gordon, H. Kikutani, T. Kishimoto, J. M. Mencia-Huerta, P. Braquet and B. Dugas 157 Functional interaction between β_2-adrenoceptor agonists and interleukin-4 in the regulation of CD23 expression and release and IgE production in human

J. Rothe, H. Bluethmann, R. Gentz, W. Lesslauer and M. Steinmetz 165 Genomic organization and promoter function of the murine tumor necrosis factor receptor β gene

S. Takahashi, J. Itoh, M. Nose, M. Ono, T. Yamamoto and M. Kyogoku 177 Cloning and cDNA sequence analysis of nephritogenic monoclonal antibodies derived from an MRL/lpr lupus mouse

M. Taniai, T. Kayano, R. Takakura, S. Yamamoto, M. Usui, S. Ando, M. Kurimoto, R. Panzani and T. Matuhasi 183 Epitopes on *Cry j* I and *Cry j* II for the human IgE antibodies cross-reactive between *Cupressus sempervirens* and *Cryptomeria japonica* pollen

J. Lederer and C. Czuprynski 191 Characterization and identification of interleukin-1 receptors on bovine fibroblasts

Review

N. Isakov 197 Tyrosine phosphorylation and dephosphorylation in T lymphocyte activation

NUMBER THREE

U. R. Nilsson, K.-E. Storm, H. Elwing and B. Nilsson 211 Conformational epitopes of C3 reflecting its mode of binding to an artificial polymer surface

V. Bichko, F. Schödel, M. Nassal, E. Gren, I. Berzinsh, G. Borisova, S. Miska, D. L. Peterson, E. Gren, P. Pushko and H. Will 221 Epitopes recognized by antibodies to denatured core protein of hepatitis B virus

J. D. Pound, J. Lund and R. Jefferis 233 Aglycosylated chimaeric human IgG3 can trigger the human phagocyte respiratory burst

P. Wilkins Stevens, C. H. Francis, M. E. Jolley and D. R. Bethell 243 Monoclonal antibodies to HIV-1 p24 core protein include pairs which exhibit synergistic binding

M. M. Newkirk, J. Rauch, R. A. K. Mageed, R. Jefferis, D. N. Posnett and G. J. Silverman 255 Restricted immunoglobulin variable region gene usage by hybridoma rheumatoid factors from patients with systemic lupus erythematosus and rheumatoid arthritis

M. Tomana, J. Zikan, Z. Moldoveanu, R. Kulhavy, J. C. Bennett and J. Mestecky 265 Interactions of cell-surface galactosyltransferase with immunoglobulins

M. Tomana, J. Zikan, R. Kulhavy, J. C. Bennett and J. Mestecky 277 Interactions of galactosyltransferase with serum and secretory immunoglobulins and their component chains

E. A. Armandola, S. M. Mariani and S. Ferrone 287 Serological and molecular characterization of mouse anti-idiotypic monoclonal antibodies elicited with the syngeneic anti-HLA-A2,28 monoclonal antibody CR11-351

Choong-Eun Lee, Suk-Ran Yoon and Kwang-Ho Pyun 301 Mechanism of interferon-γ down-regulation of the interleukin 4-induced CD23/Fc_ϵRII expression in human B cells: post-transcriptional modulation by interferon-γ

R. J. Boackle, M. H. Connor and J. Vesely 309 High molecular weight non-immunoglobulin salivary agglutinins (NIA) bind C1Q globular heads and have the potential to activate the first complement component

E. L. LaCroix and A. Froese 321 The *N*-linked oligosaccharides of the Fcϵ receptors of rat basophilic leukemia cells

331 *Erratum*

NUMBER FOUR

J. H. Wu, A. Herp and A. M. Wu 333 Defining carbohydrate specificity of *Ricinus communis* agglutinin as Galβ1→4GlcNAc (**II**) > Galβ1→3GlcNAc (**I**) > Galα1→3Gal (**B**) > Galβ1→3GalNAc (**T**)

R. C. Williams, Jr, C. C. Malone and A. Solomon 341 Conformational dependency of human IgG heavy chain-associated Gm allotypes

V. Brinkmann, J. S. Remington and S. D. Sharma 353 Vaccination of mice with the protective F3G3 antigen of *Toxoplasma gondii* activates $CD4^+$ but not $CD8^+$ T cells and induces toxoplasma specific IgG antibody

D. P. Cerretti, C. J. Kozlosky, T. Vanden Bos, N. Nelson, D. P. Gearing and M. P. Beckmann 359 Molecular characterization of receptors for human interleukin-8, GRO/melanoma growth-stimulatory activity and neutrophil activating peptide-2

R. I. Near, M. Mudgett-Hunter, J. Novotny, R. Bruccoleri and S. C. Ng 369 Characterization of an anti-digoxin antibody binding site by site-directed *in vitro* mutagenesis

J. K. Batra, S. Kasturi, M. G. Gallo, R. L. Voorman, S. M. Maio, V. K. Chaudhary and I. Pastan 379 Insertion of constant region domains of human IgG_1 into CD4-PE40 increases its plasma half-life

J. Sarrowa and L. A. Steiner 387 Primary structure of *Xenopus laevis* S10, a ribosomal protein that cross-reacts with antibodies to immunoglobulin light chains

J. George, K. M. Sheehan, P. H. Brodeur and J. L. Claflin 395 Junctional diversification in the generation of the precursor of a discrete immune response

D. B. Rubinstein, M. Symann, A. K. Stewart and T. Guillaume 403 Restriction fragment length polymorphisms and single germline coding region sequence in VH18/2, a duplicated gene encoding autoantibody

J. F. Piskurich, J. A. France, C. M. Tamer, C. A. Willmer, C. S. Kaetzel and D. M. Kaetzel 413 Interferon-γ induces polymeric immunoglobulin receptor mRNA in human intestinal epithelial cells by a protein synthesis dependent mechanism

NUMBER FIVE

S. Roman-Roman, L. Ferradini, O. Azogui, F. Faure, T. Hercend and F. Triebel 423 Alternatively spliced T cell receptor transcripts expressed in human T lymphocytes

M. G. Wing, D. J. Seilly, D. J. Bridgman and R. A. Harrison 433 Rapid isolation and biochemical characterization of rat C1 and C1q

L. Cuomo, P. Trivedi, P. Otavio de Campos-Lima, Quian-Jin Zhang, E. Ragnar, G. Klein and M. G. Masucci 441 Selective induction of allostimulatory capacity after 5-azaC treatment of EBV carrying but not EBV negative Burkitt lymphoma cell lines

D. L. Cassel, M. A. Keller, S. Surrey, E. Schwartz, A. D. Schreiber, E. F. Rappaport and S. E. McKenzie 451 Differential expression of FcγRIIA, FcγRIIB and FcγRIIC in hematopoietic cells: analysis of transcripts

K. Okamura, H. Ishiguro, Y. Ichihara and Y. Kurosawa 461 Comparison of nucleotide sequences from upstream of the D_{Q52} gene to the Sμ region of immunoglobulin heavy-chain gene loci between *Suncus murinus*, mouse and human

J. D. Pound, J. Lund and R. Jefferis 469 Human FcγRI triggering of the mononuclear phagocyte respiratory burst

J. Liu, R. Sen and T. L. Rothstein 479 Abnormal κB-binding protein in the cytoplasm of a plasmacytoma cell line that lacks nuclear expression of NF-κB

E. F. Rosloniec, K. S. Beard and J. H. Freed 491 Functional analysis of the antigen binding region of an MHC class II molecule

K. Mabrouk, M. Moulard, J. C. Gluckman, R. Romi, H. Rochat, J. Van Rietschoten and E. Bahraoui 503 Evaluation of structure–antigenicity relationship of peptides from human immunodeficiency virus type 1 (HIV-1) p18 protein by circular dichroism

513 *Book Reviews*

NUMBER SIX

E. Paz-Artal, A. Corell, P. Varela, P. Morales, J. M. M. Villa, O. G. Segurado, M. Alvarez and A. A. Villena	515	New DNA sequences for the human complement gene C4
J. Hunyadi, A. S. Kenderessy, E. Duda, P. Braquet and A. Dobozy	517	Platelet-activating factor antagonists (BN 52021 and BN 50730) inhibit tumor necrosis factor-alfa-mediated cytotoxicity on murine L929 tumor cells
A. Hohmann, V. Peters, R. Comacchio and J. Bradley	521	Mouse monoclonal anti-idiotypic antibodies to HIV p24: immunochemical properties and internal imagery
J. Galea-Lauri, J. Blackford and J. M. Wilkinson	529	The expression of CD11/CD18 molecules on rabbit leucocytes: identification of monoclonal antibodies to CD18 and their effect on cellular adhesion processes
M. Friede, S. Muller, J.-P. Briand, M. H. V. Van Regenmortel and F. Schuber	539	Induction of immune response against a short synthetic peptide antigen coupled to small neutral liposomes containing monophosphoryl lipid A
S. Mécheri, G. Dannecker, D. Dennig, P. Poncet and M. K. Hoffmann	549	Anti-histone autoantibodies react specifically with the B cell surface
B. L. Rogers, J. P. Morgenstern, R. D. Garman, J. F. Bond and M. Kuo	559	Recombinant *Fel d* I: expression, purification, IgE binding and reaction with cat-allergic human T cells
G. S. Kelner, M. K. Jenkins and R. Jemmerson	569	A single amino acid substitution in a cytochrome *c* T cell stimulatory peptide changes the MHC restriction element from one isotype ($I\text{-}A^k$) to another ($I\text{-}E^k$)
C. Pinilla, J. R. Appel and R. A. Houghten	577	Functional importance of amino acid residues making up peptide antigenic determinants
G. Bushell, C. Nelson, H. Chiu, C. Grimley, W. Henzel, J. Burnier and S. Fong	587	Evidence supporting a role for cathepsin B in the generation of T cell antigenic epitopes of human growth hormone
W. Tao, F. Hardardottir and A. L. M. Bothwell	593	Extensive somatic mutation in the Ig heavy chain V genes in a late primary anti-hapten immune response
B. Shopes	603	A genetically engineered human IgG with limited flexibility fully initiates cytolysis via complement
	611	*Announcements*

NUMBER SEVEN

C. Leclerc, E. Dériaud, F. Megret, J.-P. Briand, M. H. V. Van Regenmortel and V. Deubel	613	Identification of helper T cell epitopes of dengue virus E-protein
P. Garrone and J. Banchereau	627	Agonistic and antagonistic effects of cholera toxin on human B lymphocyte proliferation
S. B. Easterbrook-Smith	637	A light-scattering method for measuring the sizes of insoluble immune complexes
M. A. Lee, E. Bengtén, A. Daggfeldt, A. Rytting and L. Pilström	641	Characterisation of rainbow trout cDNAs encoding a secreted and membrane-bound Ig heavy chain and the genomic intron upstream of the first constant exon

P. Morel, C. Vincent, J. Wijdenes and J. P. Revillard 649 Internalization and degradation of anti-CD4 monoclonal antibodies bound to human peripheral blood lymphocytes

B. F. Flanagan, N. J. Wheatcroft, S. M. Thornton and S. E. Christmas 659 T cell receptor junctional regions of $V\gamma9^+/V\delta2^+$ T cell clones in relation to non-MHC restricted cytotoxic activity

C. G. Garlisi, K. J. Pennline, S. R. Smith, M. I. Siegel and S. P. Umland 669 Cytokine gene expression in mice undergoing chronic graft-versus-host disease

A. Sahu and M. K. Pangburn 679 Identification of multiple sites of interaction between heparin and the complement system

N. W. Hudson, M. Albrecht, Z. I. Randhawa, L. K. Steinrauf and J. A. Hamilton 685 Regeneration of antidigoxin binding activity in an antibody by changes surrounding the original binding defect

L. Morelli, L. Plotkin, J. Leoni, C. A. Fossati and R. A. Margni 695 Analysis of oligosaccharides involved in the asymmetrical glycosylation of IgG monoclonal antibodies

NUMBER EIGHT

W. S. Jewell, L. L. Marnell, L. A. Rokeach and T. W. Du Clos 701 C-reactive protein (CRP) binding to the Sm-D protein of snRNPS. Identification of a short polypeptide binding region

J. D. Pauls, S. M. Edworthy and M. J. Fritzler 709 Epitope mapping of histone 5 (H5) with systemic lupus erythematosus, procainamide-induced lupus and hydralazine-induced lupus sera

B. L. Talken, U. Tummuru and D. R. Lee 721 Slow egress of a mouse MHC class I molecule to the cell surface despite its strong association with β_2-microglobulin

J.-P. Y. Scheerlinck, R. DeLeys, E. Saman, L. Brys, A. Geldhof and P. De Baetselier 733 Redistribution of a murine humoral immune response following removal of an immunodominant B cell epitope from a recombinant fusion protein

J. Lund, N. Takahashi, H. Nakagawa, M. Goodall, T. Bentley, S. A. Hindley, R. Tyler and R. Jefferis 741 Control of IgG/Fc glycosylation: a comparison of oligosaccharides from chimeric human/mouse and mouse subclass immunoglobulin Gs

J. F. Elliott, C. L. Miller, B. Pohajdak, D. Talbot, C. D. Helgason, R. C. Bleackley and V. Paetkau 749 Induction of a proteoglycan core protein mRNA in mouse T lymphocytes

A. Hoeveler and B. Malissen 755 The cysteine residues in the cytoplasmic tail of CD8α are required for its coreceptor function

J. P. Reeves and S. L. Epstein 765 Recombinant human CD4 elicits antibody responses different in epitope specificity from those that cellular CD4 elicits

Y. G. Alevy, J. Tucker, B. Naziruddin and T. Mohanakumar 775 CD32C (FcγRIIC) mRNA expression and regulation

Brief Structural Data Report

W. R. Hein and L. Dudler 783 Nucleotide sequence of the membrane form of sheep IgM and identification of two Cμ allotypes

785 *Addendum*

NUMBER NINE

J. D. Mountz and M. A. Subler	787	Regulation of c-*myb* oncogene expression in immature and mature murine T cells
T. Frey, P. Estess and V. T. Oi	797	Dimerization of CD4-C_κ chimeric molecules leads to loss of CD4 epitopes
G. Froyen, I. Ronsse and A. Billiau	805	Bacterial expression of a single-chain antibody fragment (SCFV) that neutralizes the biological activity of human interferon-γ
D. Stickney, R. L. Mosley, M. Whetsell, L. Whetsell, F. V. Schaefer, K. S. Miller and J. R. Klein	813	T cell receptor delta gene repertoire and diversity of intestinal intraepithelial lymphocytes in athymic mice
M. Z. Whitley, Hwei-Ling Cheng, T. B. Tomasi and M. Boothby	821	Distinct IL-4 response mechanisms of the MHC gene Aα in different mouse B cell lines
M. M. Barry and J. S. Lee	833	Cloning and expression of an autoimmune DNA-binding single chain Fv. Only the heavy chain is required for binding
M. Okada, A. Kojima, H. Takano, Y. Harada, M. Nonaka, M. Nonaka, T. Kinoshita, T. Seya and S. Natsuume-Sakai	841	Functional properties of the allotypes of mouse complement regulatory protein, factor H: difference of compatibility of each allotype with human factor I
Z. Végh, P. Wang, F. Vánky and E. Klein	849	Increased expression of MHC class I molecules on human cells after short time IFN-γ treatment

NUMBER TEN

C. A. Rey-Millet, S. Chesne and M. G. Colomb	855	Associated complement C3b. Towards an understanding of its intracellular modifications
C. Vandevyver, M. Steukers, J. Lambrechts, H. Heyligen and J. Raus	865	Development and functional characterization of a murine/human chimeric antibody with specificity for the human interleukin-2 receptor
E. Champagne, A. Huchenq, J. Sevin, N. Casteran and B. Rubin	877	An alternative method for T-cell receptor repertoire analysis: clustering of human V-beta subfamilies selected in responses to staphylococcal enterotoxins B and E
A. Ya. Chernyak, A. Weintraub, N. K. Kochetkov and A. A. Lindberg	887	The β-configuration of the rhamnosidic linkage in *Salmonella* serogroups C_2 and C_3 lipopolysaccharide is important for the immunochemistry of the O-antigen 8
M. Kazemi, C. C. Huntenburg and J. E. Bubbers	895	Lipopolysaccharide epitope specificity and binding cross reactivity of the human IgM anti-lipid A monoclonal antibody SdJ5-1.17.15
C. Boyer, S. Ley, A. Davies and M. Crumpton	903	Comparative analysis of phosphotyrosyl polypeptides in normal and leukemic human T lymphocytes activated via CD3 or CD2
D. Askew, C. J. Burger and K. D. Elgert	911	Tumor-induced modulation of macrophage class II MHC molecule mRNA expression

A. Terskikh, J.-P. Mach and A. Pèlegrin — 921 — Marked increase in the secretion of a fully antigenic recombinant carcinoembryonic antigen obtained by deletion of its hydrophobic tail

P. B. Armstrong, M. T. Armstrong and J. P. Quigley — 929 — Involvement of α_2-macroglobulin and C-reactive protein in a complement-like hemolytic system in the arthropod, *Limulus polyphemus*

R. Nezlin, A. Freywald and M. Oppermann — 935 — Proteins separated from human IgG molecules

H. Deulofeut, A. Iglesias, N. Mikael, D. H. Bing, Z. Awdeh, J. Yunis, D. Marcus-Bagley, M. S. Kruskall, C. A. Alper and E. J. Yunis — 941 — Cellular recognition and HLA restriction of a midsequence HBsAg peptide in hepatitis B vaccinated individuals

Viewpoint

E. W. Voss, Jr — 949 — Significance and properties of the autoanti-metatype immune response

Short Communications

U. Settmacher, S. Jahn, P. Siegel, R. von Baehr and A. Hansen — 953 — An anti-lipid A antibody obtained from the human fetal repertoire is encoded by V_H6-$V_\lambda1$ genes

J. L. Pellequer and M. H. V. Van Regenmortel — 955 — Affinity of monoclonal antibodies to large multivalent antigens: influence of steric hindrance on antibody affinity constants calculated from Scatchard plots

959 *Announcement*

NUMBER ELEVEN

D. M. Shaw, C. M. Stanley, C. D. Partidos and M. W. Steward — 961 — Influence of the T-helper epitope on the titre and affinity of antibodies to B-cell epitopes after co-immunization

K. N. Kasturi, C. Daian, Y. Saitoh, T. Muryoi and C. A. Bona — 969 — Tight-skin mouse autoantibody repertoire: analysis of V_H and V_K gene usage

E. Brandt, F. Petersen and H.-D. Flad — 979 — A novel molecular variant of the neutrophil-activating peptide NAP-2 with enhanced biological activity is truncated at the *C*-terminus: identification by antibodies with defined epitope specificity

D. Meshcheryakova, S. Andreev, S. Tarasova, M. Sidorova, M. Vafina, G. Kornilaeva, E. Karamov and R. Khaitov — 993 — CD4-derived peptide and sulfated polysaccharides have similar mechanisms of anti-HIV activity based on electrostatic interactions with positively charged gp120 fragments

K. M. Weidner, L. K. Denzin, M. L. Kim, W. D. Mallender, S. D. Miklasz and E. W. Voss, Jr — 1003 — Elicitation of distinct populations of monoclonal antibodies specific for the variable domains of monoclonal anti-fluorescein antibody 4-4-20

D. J. Panka, D. L. Very, B. A. Jacobson, P. H. Kussie, B. Parhami-Seren, M. N. Margolies and A. Marshak-Rothstein — 1013 — Defining the structural correlates responsible for loss of arsonate affinity in an Id^{CR} antibody isolated from an autoimmune mouse

P. Fuschiotti, N. Harindranath, R. G. Mage, W. T. McCormack, P. Dhanarajan and K. H. Roux — 1021 — Recombination activating genes-1 and -2 of the rabbit: cloning and characterization of germline and expressed genes

L. Santoro, A. Reboul, A. M. Journet and M. G. Colomb 1033 Major involvement of cathepsin B in the intracellular proteolytic processing of exogenous IgGs in U937 cells

J. I. Horwitz, M. Toner, R. G. Tompkins and M. L. Yarmush 1041 Immobilized IL-2 preserves the viability of an IL-2 dependent cell line

J. Mukherjee, A. Casadevall and M. D. Scharff 1049 Mu switch region deletion is associated with both T cell independent and T cell dependent responses

Short Communication

Yinong Liu and Igor K. Egorov 1057 Nucleotide sequences of Ab^b mRNA in mutant mouse S-27 resisting cancer metastasis and affecting responses to tuberculosis

NUMBER TWELVE

C. Devaux, M. Juin, P. Mansuelle and C. Granier 1061 Fine molecular analysis of the antigenicity of the *Androctonus australis hector* scorpion neurotoxin II: a new antigenic epitope disclosed by the pepscan method

M. Monestier, T. M. Fasy, M. J. Losman, K. E. Novick and S. Muller 1069 Structure and binding properties of monoclonal antibodies to core histones from autoimmune mice

M. Kuo, X. Zhu, R. Koury, I. J. Griffith, D. G. Klapper, J. F. Bond and B. L. Rogers 1077 Purification and immunochemical characterization of recombinant and native ragweed allergen *Amb a* II

M.-Q. Xia, G. Hale and H. Waldmann 1089 Efficient complement-mediated lysis of cells containing the CAMPATH-1 (CDw52) antigen

R. G. DiScipio 1097 The size, shape and stability of complement component C9

R. Jemmerson, C. Mueller and D. Flaa 1107 Differences in heavy chain amino acid sequences affecting the specificity of antibodies for variants of cytochrome *c*

J. M. Requena, M. Soto, F. Guzman, A. Maekelt, O. Noya, M. E. Patarroyo and C. Alonso 1115 Mapping of antigenic determinants of the *T. cruzi* HSP70 in chagasic and healthy individuals

A. Corti, E. Barbanti, F. Marcucci and G. Cassani 1123 Evidences that syngeneic alpha-type anti-idiotypic antibodies may non-competitively inhibit idiotype/oligomeric antigen interactions by affecting idiotype avidity

Review

S. Avrameas and T. Ternynck 1133 The natural autoantibodies system: between hypotheses and facts

NUMBER THIRTEEN

L. Ferradini, S. Roman-Roman, O. Azogui, C. Genevée, S. Viel, T. Hercend and F. Triebel 1143 The use of anchored polymerase chain reaction for the study of large numbers of human T-cell receptor transcripts

C. Krummenacher and H. Diggelmann 1151 The mouse mammary tumor virus long terminal repeat encodes a 47 kDa glycoprotein with a short half-life in mammalian cells

Ying-Hua Chen, G. Böck, R. Vornhagen, F. Steindl, H. Katinger and M. P. Dierich — 1159 — HIV-1 gp41 binds to several proteins on the human B-cell line, Raji

J. E. Butler, Li Ni, W. R. Brown, K. S. Joshi, J. Chang, B. Rosenberg and E. W. Voss, Jr — 1165 — The immunochemistry of sandwich ELISAs—VI. Greater than 90% of monoclonal and 75% of polyclonal anti-fluorescyl capture antibodies (CAbs) are denatured by passive adsorption

C. K. Martinez and J. J. Monaco — 1177 — Post-translational processing of a major histocompatibility complex-encoded proteasome subunit, LMP-2

A. Corti, E. Barbanti, F. Marcucci and G. Cassani — 1185 — Evidence that syngeneic alpha-type anti-idiotypic antibodies may non-competitively inhibit idiotype/oligomeric antigen interactions by affecting idiotype avidity

C. A. Clarkson, D. Beale, J. W. Coadwell and D. B. A. Symons — 1195 — Sequence of ovine Ig $\gamma 2$ constant region heavy chain cDNA and molecular modelling of ruminant IgG isotypes

A. M. Najakshin, J. S. Belousov, B. Yu. Alabyev, S. S. Bogachev and A. V. Taranin — 1205 — cDNA clones encoding mink immunoglobulin λ chains

W. E. Höhne, G. Küttner, S. Kießig, G. Hausdorf, R. Grunow, K. Winkler, H. Wessner, E. Gießmann, R. Stigler, J. Schneider-Mergener, R. von Baehr and D. Schomburg — 1213 — Structural base of the interaction of a monoclonal antibody against p24 of HIV-1 with its peptide epitope

NUMBER FOURTEEN

K. Polakova, M. Karpatova and G. Russ — 1223 — Dissociation of β_2-microglobulin is responsible for selective reduction of HLA class I antigenicity following acid treatment of cells

R. W. Johnstone, S. M. Russell, B. E. Loveland and I. F. C. McKenzie — 1231 — Polymorphic expression of CD46 protein isoforms due to tissue-specific RNA splicing

A. G. Devenyi, A. G. Plaut, F. J. Grundy and A. Wright — 1243 — Post-infectious human serum antibodies inhibit IgA1 proteinases by interaction with the cleavage site specificity determinant

L. M. Kunnath-Muglia, G. H. Chang, R. B. Sim, A. J. Day and R. A. B. Ezekowitz — 1249 — Characterization of *Xenopus laevis* complement factor I structure—conservation of modular structure except for an unusual insert not present in human factor I

J.-M. Pléau, P. N. Marche, M.-P. I. Serrano, C. Boitard and J.-F. Bach — 1257 — Evidence for antigen driven selection in two monoclonal auto-antibodies derived from nonobese diabetic mice

N. Maekawa, S. Satoh, T. Kawabe, Y. Maeda, M. Hosoda, S. Iwata, K. Nakamura, E. Klein, H. Okada and J. Yodoi — 1265 — Enhancement of FcϵRII/CD23 expression on U937 cells with opsonized zymosan: the requirement of a FcγRI/CD64 mediated signal associated phagocytosis

K. Miklós, M. Tolnay, H. Bazin and G. A. Medgyesi — 1273 — Rat IgG subclasses mediating binding and phagocytosis of target cells by homologous macrophages

U. K. Ljungberg, B. Jansson, U. Niss, R. Nilsson, B. E. B. Sandberg and B. Nilsson — 1279 The interaction between different domains of staphylococcal protein A and human polyclonal IgG, IgA, IgM and $F(ab')_2$: separation of affinity from specificity

M. Grilli, A. Chen-Tran and M. J. Lenardo — 1287 Tumor necrosis factor α mediates a T cell receptor-independent induction of the gene regulatory factor NF-κB in T lymphocytes

K. L. Lohman, T. Kieber-Emmons and R. C. Kennedy — 1295 Molecular characterization and structural modeling of immunoglobulin variable regions from murine monoclonal antibodies specific for hepatitis B virus surface antigen

A. Rinfret and S. K. Anderson — 1307 IL-2 regulates the expression of the NK–TR gene via an alternate RNA splicing mechanism

M. Owhashi, S. Futaki, K. Kitagawa, Y. Horii, H. Maruyama, H. Hayashi and Y. Nawa — 1315 Molecular cloning and characterization of a novel neutrophil chemotactic factor from a filarial parasite

1321 *Announcement*

NUMBER FIFTEEN

C. Ebner, F. Ferreira, K. Hoffmann, R. Hirschwehr, S. Schenk, Z. Szépfalusi, H. Breiteneder, P. Parronchi, S. Romagnani, O. Scheiner and D. Kraft — 1323 T cell clones specific for *Bet v* I, the major birch pollen allergen, crossreact with the major allergens of hazel, *Cor a* I, and alder, *Aln g* I

L. K. Denzin, G. A. Gulliver and E. W. Voss, Jr — 1331 Mutational analysis of active site contact residues in anti-fluorescein monoclonal antibody 4-4-20

R. Ayuso, J. Carreira, M. Lombardero, O. Duffort, A. Peris, A. Basomba and F. Polo — 1347 Isolation by mAb based affinity chromatography of two *Par j* I isoallergens. Comparison of their physicochemical, immunochemical and allergenic properties

B. M. M. M. Kumar Reddy, A. A. Karande and P. Radhakantha Adiga — 1355 Antigenic determinants of human serum retinol binding protein as probed with monoclonal antibodies

M. S. Co, D. A. Scheinberg, N. M. Avdalovic, K. McGraw, M. Vasquez, P. C. Caron and C. Queen — 1361 Genetically engineered deglycosylation of the variable domain increases the affinity of an anti-CD33 monoclonal antibody

G. Biesecker, P. Lachmann and R. Henderson — 1369 Structure of complement poly-C9 determined in projection by cryo-electron microscopy and single particle analysis

J. Galea-Lauri, J. M. Wilkinson and C. H. Evans — 1383 Characterization of monoclonal antibodies against rabbit CD44: evidence of a role for CD44 in modulating synoviocyte metabolism

NUMBER SIXTEEN

T. Komori and H. Sugiyama — 1393 N sequences, P nucleotides and short sequence homologies at junctional sites in V_H to V_HDJ_H and V_HDJ_H to J_H joining

J.-F. Lambert, H. Acha-Orbea, E. Kolb and H. Diggelmann	1399	The 3′ half of the mouse mammary tumor virus *orf* gene is not sufficient for its superantigen function in transgenic mice
B. E. Ledford, B. G. Magor, D. L. Middleton, R. L. Miller, M. R. Wilson, N. W. Miller, L. W. Clem and G. W. Warr	1405	Expression of a mouse–channel catfish chimeric IgM molecule in a mouse myeloma cell
O. H. Brekke, B. Bremnes, R. Sandin, A. Aase, T. E. Michaelsen and I. Sandlie	1419	Human IgG3 can adopt the disulfide bond pattern characteristic for IgG1 without resembling it in complement mediated cell lysis
G. T. Williams, P. Dariavach, A. R. Venkitaraman, D. J. Gilmore and M. S. Neuberger	1427	Membrane immunoglobulin without sheath or anchor
G. Poirier, L. Faulkner and B. Chain	1433	Isolation and characterization of a new murine MHC class II transcription mutant cell line
D. M. Knight, H. Trinh, J. Le, S. Siegel, D. Shealy, M. McDonough, B. Scallon, M. Arevalo Moore, J. Vilcek, P. Daddona and J. Ghrayeb	1443	Construction and initial characterization of a mouse–human chimeric anti-TNF antibody
G. L. Ong and M. J. Mattes	1455	Re-evaluation of the concept of functional affinity as applied to bivalent antibody binding to cell surface antigens
J. M. Anchin and D. S. Linthicum	1463	Variable region sequence and characterization of monoclonal antibodies to a N,N′,N″-trisubstituted guanidine high potency sweetener
R. U. Chukwuocha and A. J. Feeney	1473	Role of homology-directed recombination: predominantly productive rearrangements of V_H81X in newborns but not in adults
K. Yago, K. Zenita, I. Ohwaki, R. Harada, S. Nozawa, K. Tsukazaki, M. Iwamori, N. Endo, N. Yasuda, M. Okuma and R. Kannagi	1481	Immunoglobulin variable region sequences of two human monoclonal antibodies directed to an onco-developmental carbohydrate antigen, lactotetraosylceramide ($LcOse_4Cer$)
M. Wagatsuma, N. Asami, J. Miyachi, S. Uchida, H. Watanabe and E. Amann	1491	Antibody recognition of the recombinant human nuclear antigens RNP 70 kD, SS-A, SS-B, Sm-B and Sm-D by autoimmune sera
A. Berneman, B. Guilbert, S. Eschrich and S. Avrameas	1499	IgG auto- and polyreactivities of normal human sera
P. Jeannin, Y. Delneste, E. Buisine, J. Le Mao, A. Didierlaurent, G. A. Stewart, A. Tartar, A.-B. Tonnel and J. Pestel	1511	Immunogenicity and antigenicity of synthetic peptides derived from the mite allergen *Der p* I
G. Orfanoudakis, B. Karim, D. Bourel and E. Weiss	1519	Bacterially expressed Fabs of monoclonal antibodies neutralizing tumour necrosis factor alpha *in vitro* retain full binding and biological activity
J. F. Bond, A. W. Brauer, D. B. Segal, A. K. Nault, B. L. Rogers and M.-C. Kuo	1529	Native and recombinant *Fel d*I as probes into the relationship of allergen structure to human IgE immunoreactivity

M. J. Moran, J. S. Andris, Y. Matsumato, J. D. Capra and E. M. Hersh — 1543 Variable region genes of anti-HIV human monoclonal antibodies: non-restricted use of the V gene repertoire and extensive somatic mutation

S. J. Klaus, N. E. Phillips and D. C. Parker — 1553 Effects of IL-4 and Fcγ receptor II engagement on *Egr*-1 expression during stimulation of B lymphocytes by membrane immunoglobulin crosslinking

1559 *Announcements*

NUMBER SEVENTEEN

C. Leclerc, P. Martineau, A. Charbit, R. Lo-Man, E. Dériaud and M. Hofnung — 1561 Immunodominance of a recombinant T-cell epitope depends on its molecular environment

M. Lötscher, K. Blaser and C. H. Heusser — 1573 Specific V gene usage in anti-phosphorylcholine IgE antibodies

Y.-H. Chen, S. Opitz, G. Böck, F. Steindl, H. Katinger and M. P. Dierich — 1583 Enhancement of HIV-1 gp41 binding to Raji cells by PWM, LPS, interferon-γ and interleukin-6

T. Horiuchi, S. Kim, M. Matsumoto, I. Watanabe, S. Fujita and J. E. Volanakis — 1587 Human complement factor B: cDNA cloning, nucleotide sequencing, phenotypic conversion by site-directed mutagenesis and expression

S. Alhasan, R. Santini, Q. Li and A. Rosenspire — 1593 Membrane immunoglobulin is characterized by distinct structural subpopulations

J. S. Andris, B. R. Brodeur and J. D. Capra — 1601 Molecular characterization of human antibodies to bacterial antigens: utilization of the less frequently expressed V_H2 and V_H6 heavy chain variable region gene families

Short Communication

T. Roger, I. Miconnet, M. Bruley-Rosset and M. Seman — 1617 Rearrangement by chromosomal inversion in the T cell receptor gamma locus in a murine $\alpha\beta$ T cell clone

1621 *Announcement*

i *Forthcoming Papers*

NUMBER EIGHTEEN

S. Demotz and C. Danieli — 1623 Release of DR molecules from complexes with invariant chain through the formation of a C-terminal 25 kDa invariant chain fragment

L. H. Stanker, A. Wyrobek, C. McKeown and R. Balhorn — 1633 Identification of the binding site of two monoclonal antibodies to human protamine

M. Pernollet, C. Villiers, F. Gabert, C. Drouet and M. Colomb — 1639 OH^* treatment of tetanus toxin reduces its susceptibility to limited proteolysis with more efficient presentation to specific T cells

B. R. Jin, C. J. Ryu, S. S. Park, U. Namgung, H. J. Hong and M. H. Han — 1647 Cloning, expression and characterization of a murine–human chimeric antibody with specificity for pre-S2 surface antigen of hepatitis B virus

A. A. Ghaderi and D. R. Stanworth 1655 Epitope mapping of the site(s) of binding of FcεRII/CD23 within human IgE. Determination of the B lymphocyte-binding sites by use of synthetic peptides and anti-peptide antibodies representative of linear Fc sequences

R. Mizutani, C. Matsunaga, T. Kouyama, M. Sato, Y. Katsube, K. Kato, I. Shimada and Y. Arata 1665 Molecular structural studies of effector functions of a mouse immunoglobulin G that lacks the entire C_H1 domain: small-angle X-ray scattering, nanosecond fluorescence depolarization and stable isotope-aided NMR analyses

K. V. Kesari, G. Van Bleek, S. G. Nathenson and J. Geliebter 1671 A single amino acid substitution in the H-2K^b molecule generates a defined allogeneic epitope

Q. V. Nguyen, W. Knapp and R. E. Humphreys 1679 Characterization of the invariant chain C-terminus (Glu^{183}–Glu^{193}) epitope which is obscured in processed I_i, MHC α,β trimers

R. Helm, G. Cockrell, P. Sharkey, R. Brenner and A. W. Burks 1685 *In vitro* translation of RNA from the German cockroach *Blattella germanica*

G. Szabó Jr, J. L. Weaver, P. S. Pine and A. Aszalos 1689 Specific disengagement of cell-bound anti-LAM-1 (anti-L-selectin) antibodies by aurintricarboxylic acid

i *Forthcoming Papers*

I *Index for Volume* 30, 1993